

Bellwork: 4/4/13

Simplify the following expression:

LCD:
 $(x-3)(x+5)(x-6)$

1) $\frac{4x}{x^2+2x-15} + \frac{3x}{x^2-9x+18}$

$(x+5)(x-3) \quad (x-3)(x-6)$

$\frac{4x(x-6)}{(x+5)(x-3)(x-6)} + \frac{3x(x+5)}{(x-3)(x-6)(x+5)}$

$\frac{4x^2 - 24x + 3x^2 + 15x}{(x-3)(x-6)(x+5)} = \frac{7x^2 - 9x}{(x-3)(x-6)(x+5)}$

Example 3: $\frac{3x}{3x^2+x-2} + \frac{x+1}{3x^2+10x-8} - \frac{4}{3x-2}$ LCD: $(3x-2)(x+1)(x+4)$

$\frac{3x(x+1)}{(3x-2)(x+1)} + \frac{(x+1)(x+1)}{(3x-2)(x+4)} - \frac{4(x+1)(x+4)}{(3x-2)(x+1)(x+4)}$

$\frac{3x(x+1)}{(3x-2)(x+1)(x+4)} + \frac{(x+1)(x+1)}{(3x-2)(x+4)(x+1)} - \frac{4(x+1)(x+4)}{(3x-2)(x+1)(x+4)}$

$3x^2 + 12x + x^2 + 2x + 1 - 4(x^2 + 5x + 4)$

$3x^2 + 12x + x^2 + 2x + 1 - 4x^2 - 20x - 16$

$-6x - 15$

$\frac{-6x - 15}{(3x-2)(x+1)(x+4)}$

HW - pg 6 # 6
pg 7 # 8 + 9

